LPDES PERMIT NO. LA0005843, AI No. 7893

LPDES FACT SHEET and RATIONALE
FOR THE DRAFT LOUISIANA POLLUTANT DISCHARGE ELIMINATION SYSTEM
(LPDES) PERMIT TO DISCHARGE TO WATERS OF LOUISIANA

1. **Company/Facility Name:** Entergy Gulf States Louisiana, LLC
Roy S. Nelson Oil & Gas Electrical Generating Plant
Post Office 61000,L-ENT-5E
New Orleans, Louisiana 70161-1000

2. **Issuing Office:** Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services
Post Office Box 4313
Baton Rouge, Louisiana 70821-4313

3. **Prepared By:** Michelle Bickham
Industrial Permits Section
Water Permits Division
Phone #: 225-219-3109

Date Prepared: March 9, 2009

4. **Permit Action/Status:**

A. Reason For Permit Action:

Proposed reissuance of a Louisiana Pollutant Discharge Elimination System (LPDES) permit for a 5-year term following regulations promulgated at LAC 33:IX.2711.

LAC 33:IX Citations: Unless otherwise stated, citations to LAC 33:IX refer to promulgated regulations listed at Louisiana Administrative Code, Title 33, Part IX.

B. LPDES permit -
LPDES permit effective date: October 1, 2003
LPDES permit expiration date: September 30, 2008
LPDES permit modification date: July 1, 2007

C. Application received on April 2, 2008

5. **Facility Information:**

A. Location - 3500 Houston River Road, Westlake

B. Applicant Activity -

According to the application, Entergy Gulf States Louisiana, LLC, Roy S. Nelson Oil & Gas Electrical Generating Plant, is owned and operated by Entergy Gulf States Louisiana, LLC. The plant generates

electricity at a maximum capacity of 876 megawatts (MW) using four fossil-fired units. Units 1 and 2 burn petroleum coke and limestone as the primary fuel source. Natural gas can be used as a secondary fuel for start-up purposes only. Units 3 and 4 are fueled by natural gas; however, No. 2 and No. 6 fuel oil can also be used as a secondary source of fuel. Units 1 through 4 are cooled with recirculating water from five cooling towers located north of the generating units. Unit 6 is also located at this site. Unit 6 is a coal fired unit with a maximum generating capacity of 550 MW. However, the wastewater discharges from Unit 6 are regulated under LPDES permit LA0059030.

The Roy S. Nelson Oil & Gas Electrical Generating Plant obtains the majority of its source cooling water from the Sabine River Authority (SRA). The intake structure for the station is located along the northeast shoreline of the site's SRA pond. The SRA pond is a manmade indentation used as a reservoir to store surface water from the Sabine River Authority. The plant uses cooling towers which are considered BTA; therefore, the facility is not subject to the 316(b) intake structure rule.

C. Technology Basis - LAC 33:IX.4903

Guideline	Reference
Steam Electric Power Generating Point Source Category	40 CFR 423

Other sources of technology based limits:

- LDEQ Stormwater Guidance, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6)
- LPDES permit LAG670000 effective February 1, 2003
- Best Professional Judgement

D. Fee Rate -
1. Fee Rating Facility Type: Major
2. Complexity Type: IV
3. Wastewater Type: II
4. SIC code: 4911

E. Continuous Facility Effluent Flow (Max 30-Day) - 8.04 MGD.

6. **Receiving Waters**: Houston River

1. TSS (15%), mg/L: 4
2. Average Hardness, mg/L $CaCO_3$: 88.98
3. Critical Flow, cfs: 9.38
4. Mixing Zone Fraction: 1

5. Harmonic Mean Flow, cfs: 9.38
6. River Basin: Calcasieu, Segment No. 030806
7. Designated Uses:
   The designated uses are primary contact recreation, secondary contact recreation, fish and wildlife propagation, and agriculture.

Information based on the following: LAC 33:IX Chapter 11;/Recommendation(s) from the Engineering Section. Hardness and 15% TSS data come from ambient monitoring station #846 (Houston River at the Anthony Ferry bridge, 4 miles northeast of Sulphur, 4.3 miles northwest of Westlake, 2.7 miles north of Mossville, and 3.9 miles southeast of Buhler).

7. Outfall Information:

Outfall 001

A. Type of wastewater - the continuous discharge of cooling tower blowdown, stormwater runoff from the No. 2 oil tank farm, and low volume wastewaters (including but not limited to condensate polishing effluents, softener regeneration effluents, pump seal water, demineralization regeneration effluents, reverse osmosis unit reject water, boiler and evaporator blowdown from Units 1-4, boiler and turbine generator washdown from Units 1-4, sludge geotube wastewater, fire system water, maintenance wastewaters and floor and yard drains), air condition unit condensate, previously monitored chemical metal and metal cleaning wastewater from Outfall 101, previously monitored treated sanitary wastewater from Outfall 201, and previously monitored hydrostatic test wastewater from Outfall 107

B. Location - at the point of discharge from the northeast corner of the wastewater lagoon where an outlet discharges effluent at the flow controlling weir (Latitude 30°17'05", Longitude 93°17'19")

C. Treatment - shock treatment, oil/water separation, neutralization (when required), sedimentation, algae treatment (when required), coagulation (when required)

D. Flow - 6.96 mgd

E. Receiving waters - Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 101

A. Type of wastewater - the intermittent internal discharge of chemical metal and metal cleaning wastewaters including but not limited to acid boiler cleaning wastewater, boiler fireside washwater, air preheater washwater, and bag house and precipitator washwater

B. Location - at the point of discharge from the batch treatment facility prior to combining with other wastewaters in the wastewater lagoon (Latitude 30°17'06", Longitude 93°17'22")

C. Treatment - oxidation, precipitation, sedimentation

D. Flow - 0.0166 mgd

E. Receiving waters - through Outfall 001 thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 201

A. Type of wastewater - the intermittent discharge of treated sanitary wastewater

B. Location - at the point of discharge from the sewage treatment plant prior to combining with other wastewaters in the wastewater lagoon (Latitude 30°17'00", Longitude 93°17'17")

C. Treatment - sewage treatment plant including sedimentation, aerobic and anaerobic digestion, chlorine disinfection, sand filtering

D. Flow - 0.00013 MGD

E. Receiving waters - through Outfall 001 thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 002

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater runoff from the Roy S. Nelson Plant's diked fuel oil storage area and previously monitored hydrostatic test wastewater from Outfall 107. The diked fuel oil storage area consists of the No. 6 fuel oil storage tank farm, the occasional discharge of maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System for the south fuel oil storage tank area), pump seal water, an inactive

fuel oil pumping island, and the northeast and southeast containment cells of the tank farm

B. Location - flow-weighted composite sample from the tank farm oil/water separator, fuel oil island oil/water separator, discharge from the northeast cell and discharge from the southeast cell; this composite involves discharges from two oil/water separators and four manual drain valves (Latitude 30°16'30", Longitude 93°17'19")

C. Treatment - oil/water separation, neutralization (when required), sedimentation, coagulation (when required)

D. Flow - intermittent (0.048 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 003

A. Type of wastewater - the intermittent discharge of stormwater runoff and low volume wastewater including but not limited to runoff from the coke and limestone storage area, equipment washwater, deminimus groundwater seepage, pump seal water, maintenance wastewaters, emergency overflow from the coke truck washwater treatment system, sludge geotube wastewater, dust control spray system runoff, and previously monitored hydrostatic test wastewater from Outfall 107

B. Location - at the point of discharge from the north plant area collection basin to the plant drainage ditch system along the east side of the facility (Latitude 30°17'11", Longitude 93°17'02")

C. Treatment - neutralization (when required), coagulation (when required), sedimentation, filtration (when required)

D. Flow - intermittent (0.4222 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 004

A. Type of wastewater - the intermittent discharge of stormwater runoff from the coke fluidized bed ash disposal landfill runoff collection pond and staging area and previously monitored hydrostatic test wastewater from Outfall 107

B. Location - at the point of discharge (manual control valve) from the retention basin (Latitude 30°16'34", Longitude 93°17'18")

C. Treatment - neutralization (when required), coagulation (when required), sedimentation, filtration (when required)

D. Flow - intermittent (0.13 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 005

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater runoff from portions of the ash haul road, the coke and limestone haul road, the gas yard, the No. 2 oil fuel unloading/loading area, the 138 kilovolt (KV) switchyard area, and previously monitored hydrostatic test wastewater from Outfall 107

B. Location - at the point of discharge from the plant drainage system where the stormwater runoff crosses under the road leading from the coke storage building area (Latitude 30°16'51", Longitude 93°17'06")

C. Treatment - neutralization (when required), coagulation (when required), filtration (when required)

D. Flow - intermittent (0.0509 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 006

A. Type of wastewater - the intermittent discharge of stormwater runoff from the spare parts warehouse area, consolidated shop building area, and kerosene and gasoline tank diked area, maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System around Units 3 and 4), rinse water from the vehicle rinse station, and previously monitored hydrostatic test wastewaters from Outfall 107

B. Location - at the point of discharge along the plant drainage system where the stormwater runoff crosses under the access road leading to Units 1-4 and west of Unit 4 cooling tower (Latitude 30 °17'10", Longitude 93°17'27")

C. Treatment - neutralization (when required), coagulation (when required), filtration (when required)

D. Flow - intermittent (0.1510 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 007

A. Type of wastewater - the intermittent discharge of low contamination potential stormwater runoff from the switchyard and contractor lay down yard and maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System that serves the Units 1 - 4 yard and the south contractor lay down yard) and previously monitored hydrostatic test wastewater from Outfall 107

B. Location - at the point of discharge from the southeast ditch exiting the contractor lay down yard(Latitude 30°16'40", Longitude 93°17'24")

C. Treatment - neutralization (when required), coagulation (when required), filtration (when required)

D. Flow - intermittent (0.26 MGD)

E. Receiving waters - local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

Outfall 107

A. Type of wastewater - the intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment

B. Location - at the point of discharge from the pipe, tank, vessel, and/or equipment being tested prior to combining with wastewaters from Outfalls 001, 002, 003, 004, 005, 006, and/or 007

C. Treatment - None

D. Flow - Intermittent

E. Receiving waters - through Outfall 001 thence directly to the Houston River or through Outfalls 002, 003, 004, 005, 006, or 007 thence to local drainage thence to the Houston River

F. Basin and segment - Calcasieu Basin, Segment 030806

8. Previous Effluent Limitations:

Outfall 001 - the continuous discharge of combined plant effluent, including but not limited to: cooling tower blowdown, storm water runoff from main plant yard drains and No. 2 fuel oil tank farm, low volume wastewater, maintenance wastewaters include hydrostatic testing and flushing of piping systems and vessels (including the Fire Protection Water Supply System and Automatic Sprinkler System), and previously monitored effluent from Internal Outfall 101 and 201. The low volume wastewater sources include softener regeneration, reverse osmosis reject water, demineralizer regeneration, floor drains, boiler blowdown, and condensate polishing

Parameter	**LPDES**	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report Continuous Record	Report Continuous Record
Temperature (°F)	90°F* 1/day In-situ	90°F* 1/day In-situ
Free Available Chlorine	0.2 mg/L 1/week Grab	0.5 mg/L 1/week Grab
TSS	30 mg/L 1/week Grab	100 mg/l 1/week Grab
Oil & Grease	15 mg/L 1/week Grab	20 mg/L 1/week Grab
Total Chromium	0.2 mg/L 1/year. Grab	0.2 mg/L 1/year Grab
Total Zinc	1.0 mg/L 1/month Grab	1.0 mg/L 1/month Grab

TOC	---	50 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/week Grab	

*Daily maximum limitation is 95 °F for the months of June, July, August, September, and October.

WHOLE EFFLUENT TOXICITY TESTING (CHRONIC)	PERCENT %, UNLESS STATED		MONITORING REQUIREMENTS	
	MONTHLY AVERAGE MINIMUM	7-DAY MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 7-Day Chronic, *Pimephales promelas*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, *Pimephales promelas*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Growth, Static Renewal, 7-Day Chronic, *Pimephales promelas*	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, *Pimephales promelas*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, *Pimephales promelas*	Report	Report	1/quarter	24-hr. Composite

NOEC, Pass/Fail [0/1], Lethality, Static Renewal, 7-Day Chronic, *Ceriodaphnia dubia*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Lethality, Static Renewal, 7-Day Chronic, *Ceriodaphnia dubia*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Reproduction, Static Renewal, 7-Day Chronic, *Ceriodaphnia dubia*	Report	Report	1/quarter	24-hr. Composite
NOEC, Pass/Fail [0/1], Growth, Static Renewal, 7-Day Chronic, *Ceriodaphnia dubia*	Report	Report	1/quarter	24-hr. Composite
NOEC, Value [%], Coefficient of Variation, Static Renewal, 7-Day Chronic, *Ceriodaphnia dubia*	Report	Report	1/quarter	24-hr. Composite

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 001, at the northeast corner of the wastewater lagoon where an outlet discharges effluent to a buried 30-inch diameter pipe that carries the effluent approximately 2,000 feet to the Houston River.

Outfall 101 - the intermittent internal discharge of metal cleaning and chemical metal cleaning wastewaters from internal components of plant equipment

Parameter	LPDES	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/day Estimate	Report 1/day Estimate
Total Copper	1.0 mg/L 1/week Grab	1.0 mg/L 1/week Grab
Total Iron	1.0 mg/L 1/week Grab	1.0 mg/L 1/week Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 101, at the point of discharge from the batch treatment facility prior to combining with other wastewaters in the wastewater lagoon and exiting the facility via Outfall 001

Outfall 201 - the discharge of treated sanitary wastewater

Parameter	LPDES	
	Monthly Average	**Weekly Average**
Flow - mgd	Report 1/6 months Estimate	Report 1/6 months Estimate
BOD_5	---	45 mg/L 1/6 months Grab
TSS	---	45 mg/L 1/6 months Grab

Fecal Coliform	400 col./100 mL 1/6 months Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 201, at the point of discharge from the sewage treatment plant prior to combining with any other wastewaters in the wastewater lagoon and exiting the facility via Outfall 001

Outfall 002 - the intermittent discharge of low contamination potential storm water runoff from the No. 6 fuel oil storage tank farm and No. 6 fuel oil pump area, and previously monitored hydrostatic test water from Internal Outfall 107

Parameter*	**LPDES**	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/quarter Estimate	Report 1/quarter Estimate
TOC	---	50 mg/L 1/quarter Grab
Oil and Grease	---	15 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/quarter Grab	

*Testing of these are required upon exceedance of benchmark concentrations.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 002, flow-weighted composite sample from the tank farm oil/water separator, fuel oil island oil/water separator, discharge from the northeast cell

and discharge from the southeast cell. This composite involves discharge from two oil/water separators and four manual drain valves.

Outfall 003 - the intermittent discharge of storm water runoff from the coke and limestone storage area, washwater, deminimus groundwater seepage, maintenance wastewaters, including hydrostatic test waters, emergency overflow from coke truck wash water treatment system, and runoff from the spray system used for dust control

Parameter	LPDES	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/day Estimate	Report 1/day Estimate
TSS	30 mg/L 1/week Grab	100 mg/L 1/week Grab
Oil and Grease	15 mg/L 1/week Grab	20 mg/L 1/week Grab
TOC	---	50 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/week Grab	

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 003, at the point of discharge from the north plant area collection basin to the plant drainage ditch system along the east side of the facility prior to combining with any other waters.

Outfall 004 - the intermittent discharge of storm water runoff from portions of the coke ash disposal area and coke fluidized bed ash handling area

Parameter	LPDES	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/month Estimate	Report 1/month Estimate
TSS	30 mg/L 1/month Grab	100 mg/L 1/month Grab
Oil and Grease	---	15 mg/L 1/month Grab
TOC	---	50 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/month Grab	

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 004, at the point of discharge (manual control valve) from the retention basin prior to entering the plant drainage ditch.

Outfall 005 - the intermittent discharge of low contamination potential stormwater runoff from industrial and non-industrial portions of the site including but not limited to runoff from the ash haul road, the coke and limestone haul road, the gas yard, No.2 oil fuel handling area, and the 138 kV switchyard

Parameter*	LPDES	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/quarter Estimate	Report 1/quarter Estimate
TOC	---	50 mg/L 1/quarter Grab
Oil and Grease	---	15 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/quarter Grab	

*Testing of these are required upon exceedance of benchmark concentrations.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 005, at the point of discharge from the plant drainage system where the stormwater runoff crosses under the road leading from the coke storage building area.

Outfall 006 - the intermittent discharge of storm water runoff from the spare parts warehouse area, consolidated shop building area, kerosene and gasoline tank diked area, maintenance wastewaters include hydrostatic testing and flushing of piping systems and vessels (including the Fire Protection Water Supply System and Automatic Sprinkler System) and rinse water from the vehicle rinse station. Occasionally runoff from the spray system used for dust control is discharged.

Parameter	LPDES	
	Monthly Average	**Daily Maximum**

Flow - mgd	---	Report 1/quarter Estimate
TOC	---	50 mg/L 1/quarter Grab
Oil and Grease	---	15 mg/L 1/quarter Grab
pH	6.0 - 9.0 s.u. 1/quarter Grab	

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 006, at the point of discharge along the plant drainage ditch system where the stormwater crosses under the access road leading to Units 1-4 and west of Unit 4 cooling tower.

Outfall 007 - the intermittent discharge of low contamination potential storm water runoff from the switchyard and contractor lay down yard, and previously monitored hydrostatic test water from Internal Outfall 107

Parameter*	**LPDES**	
	Monthly Average	**Daily Maximum**
Flow - mgd	Report 1/quarter Estimate	Report 1/quarter Estimate
TOC	---	50 mg/L 1/quarter Grab
Oil and Grease	---	15 mg/L 1/quarter Grab

pH	6.0 - 9.0 s.u. 1/quarter Grab

*Testing of these are required upon exceedance of benchmark concentrations.

There shall be no discharge of floating solids or visible foam in other than trace amounts.

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following locations:

Outfall 007, at the point of discharge from the southeast ditch exiting the contractor lay down yard.

Outfall 107 - the intermittent discharge hydrostatic test waters from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment throughout the facility

EFFLUENT CHARACTERISTIC	LIMITATION	
	Monthly Average	Daily Maximum
Flow-mgd	Report 1/discharge Estimate	Report 1/discharge Estimate
TSS	---	90 mg/L 1/discharge Grab
TOC	---	50 mg/L 1/discharge Grab
Oil & Grease	---	15 mg/L 1/discharge Grab
Benzene**	---	50 µg/L 1/discharge Grab
Total BTEX**	---	250 µg/L 1/discharge Grab

Total Lead**	---	50 µg/L 1/discharge Grab
pH	6.0 - 9.0 s.u. 1/discharge Grab	

**Sampling for Total Lead, Total BTEX, and Benzene is only required when discharging hydrostatic test waters from existing pipes, tanks, vessels or equipment that have been used for the storage or transportation of liquid or gaseous hydrocarbons, ie diesel tanks or natural gas lines, etc.

Outfall 107, at the point of discharge from the pipe, vessel, or equipment tested.

9. Summary of Proposed Changes From the Current LPDES permit:

- The outfall descriptions have been updated based on an email from Gus VonBondungen dated March 27, 2009.
- A provision for recording the quantity and types of coagulants used has been added to Outfall 001.
- The limits for Outfall 002 have been updated in accordance with the reissuance of the Class I Sanitary Discharge General Permit, and the fecal coliform limit has been changed from weekly average to daily max.

10. Proposed Permit Limits:

The specific effluent limitations and/or conditions will be found in the draft permit. Development and calculation of permit limits are detailed in the Permit Limit Rationale section below.

11. Permit Limit Rationale:

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under LAC 33:IX.2707/40 CFR Part 122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at LAC 33:IX.2707.L.2.b, the draft permit limits are based on either technology-based effluent limits pursuant to LAC 33:IX.2707.A or on State water quality standards and requirements pursuant to LAC 33:IX.2707.D, whichever are more stringent.

B. TECHNOLOGY-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Regulations promulgated at LAC 33:IX.2707.A require technology-based effluent limitations to be placed in LPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgement) in the absence of guidelines, or on a combination of the two. The following is a rationale for types of wastewaters. Entergy Gulf States Louisiana, LLC, Roy S. Nelson Oil & Gas Electrical Generating Plant is subject to Best Practicable Control Technology Currently Available (BPT) and Best Available Technology Economically Achievable (BAT) effluent limitation guidelines listed below:

Manufacturing Operation	Guideline
Steam Electric Power Generating Point Source Category	40 CFR 423

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [LAC33:IX.2715] and to assure compliance with permit limitations [LAC33:IX.2707.I]

C WATER QUALITY-BASED EFFLUENT LIMITATIONS

Technology-based effluent limitations were screened against state water quality numerical standard based limitations by following guidance procedures established in the Permitting Guidance Document for Implementing Louisiana Surface Water Quality Standards, LDEQ, April 16, 2008. Calculations, results, and documentation are given in Appendix B.

The following pollutants received water quality based effluent limits:

None

D. MONITORING FREQUENCIES

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity (LAC33:IX.2715) and to assure compliance with permit limitations (LAC33:IX.2707.I). Specific monitoring frequencies per outfall are listed in Section E.

E. OUTFALL SPECIFIC RATIONALE

Outfall 001

1. General Comments

This outfall is the continuous discharge of cooling tower blowdown, stormwater runoff from the No. 2 oil tank farm, and low volume wastewaters (including but not limited to condensate polishing effluents, softener regeneration effluents, pump seal water, demineralization regeneration effluents, reverse osmosis unit reject water, boiler and evaporator blowdown from Units 1-4, boiler and turbine generator washdown from Units 1-4, sludge geotube wastewater, fire system water, maintenance wastewaters and floor and yard drains), air condition unit condensate, previously monitored chemical metal and metal cleaning wastewater from Outfall 101, previously monitored treated sanitary wastewater from Outfall 201, and previously monitored hydrostatic test wastewater from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	Continuous	Record
Temperature °F*	90°F	90°F	1/day	In-situ
Free Available Chlorine **	0.2 mg/L	0.5 mg/L	1/week	Grab
TSS	30 mg/L	100 mg/L	1/week	Grab
Oil & Grease	15 mg/L	20 mg/L	1/week	Grab
Total Chromium	0.2 mg/L	0.2 mg/L	1/year	Grab
Total Zinc	1.0 mg/L	1.0 mg/L	1/month	Grab

TOC	---	50 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/week	Grab

* Daily Maximum limitation is 95°F for the months of June, July, August, September, and October.

** Sample shall be representative of periods of chlorination.

Flow - The current LPDES permit established a reporting requirement for monthly average and daily maximum flow. These requirements are being retained with a continuous monitoring frequency. These requirements are consistent with ~~LAC33:IX.2707.I.1.b.~~

Temperature - The current LPDES permit established a monthly average limitation of 90°F and a daily maximum limitation of 90°F. (The daily maximum limitation is 95°F for the months of June, July, August, September, and October.) These requirements are being retained with a monitoring frequency of once per day. Temperature is measured in-situ with analysis required immediately.

Free Available Chlorine - The current LPDES permit established a monthly average limitation of 0.2 mg/L and a daily maximum limitation of 0.5 mg/L in accordance with 40 CFR 423.13(d)(1), (2), and (g). These limitations are being retained with the same monitoring frequency of once per week by grab sample during periods of chlorination.

TSS - The current LPDES permit established a monthly average limitation of 30 mg/L and a daily maximum limitation of 100 mg/L. These limitations are being retained with the same monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limitation of 15 mg/L and a daily maximum limitation of 20 mg/L. These limitations are being retained with the same monitoring frequency of once per week by grab sample.

Total Chromium - The current LPDES permit established a monthly average limitation of 0.2 mg/L and a daily maximum limitation of 0.2 mg/L in accordance with 40 CFR 423.13 (BAT)(d)(1) and (g). These limitations are being retained with the same monitoring frequency of once per year by grab sample.

Total Zinc - The current LPDES permit established a monthly average limitation of 1.0 mg/L and a daily maximum limitation of 1.0 mg/L in accordance with 40 CFR 423.13(d)(1) and (g). These limitations are being retained with the same monitoring frequency of once per month by grab sample.

TOC - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is being retained with the same monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and maximum discharge limitation of 9.0 standard units for pH. These limitations, based on 40 CFR 423.12.(b)(1), are being retained with a monitoring frequency of once per week by grab sample.

TOXICITY TESTS	FREQUENCY
Chronic static renewal 7-day definitive toxicity test using fathead minnow (*Pimephales promelas*)	once per quarter
Chronic static renewal 7-day definitive toxicity test using water flew (*Ceriodaphnia dubia*)	once per quarter

Toxicity tests shall be performed in accordance with protocols described in the latest revision of the "Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms." The stipulated test species are appropriate to measure the toxicity of the effluent consistent with the requirements of the State water quality standards. The biomonitoring frequency has been established to reflect the likelihood of ambient toxicity and to provide data representative of the toxic potential of the facility's discharge in accordance with regulations promulgated at LAC 33:IX.2715.

Results of all dilutions as well as the associated chemical monitoring of pH, temperature, hardness, dissolved oxygen, conductivity, and salinity shall be documented in a full report according to the test method publication mentioned in the previous paragraph. The permittee shall submit a copy of the first full report to the Office of Environmental Compliance. However, the full report and subsequent reports are to be retained for three (3) years following the provisions of Part III.C.3 of this permit. The permit requires the submission of certain toxicity testing information as an attachment to the Discharge Monitoring Report.

This permit may be reopened to require effluent limits, additional testing, and/or other appropriate actions to address toxicity if biomonitoring data shows actual or potential ambient toxicity to be the result of the permittee's discharge to the receiving stream or water body. Modification or revocation of the permit is subject to the provisions of LAC 33:IX.3105. Accelerated or intensified toxicity testing may be required in accordance with Section 308 of the Clean Water Act.

Dilution Series - The permit requires five (5) dilutions in addition to the control (0% effluent) to be used in the toxicity tests. These additional effluent concentrations shall be 23%, 30%, 40%, 53%, and 71%. The biomonitoring critical dilution is defined as 53% effluent.

Internal Outfalls

In accordance with LAC33:IX.3305, the following is an explanation for the establishment of Internal Outfalls 101 and 201. Certain permit effluent limitations at the point of discharge are impractical because at the final discharge point, the wastewater is diluted as to make monitoring impracticable. Therefore, in accordance with LAC33:IX.2709, the internal outfalls described below will remain in the permit.

Internal Outfall 101

1. General Comments

This outfall is the intermittent internal discharge of chemical metal and metal cleaning wastewaters including but not limited to acid boiler cleaning wastewater, boiler fireside washwater, air preheater washwater, and bag house and precipitator washwater.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/day	Estimate
Total Copper	1.0 mg/L	1.0 mg/L	1/week	Grab
Total Iron	1.0 mg/L	1.0 mg/L	1/week	Grab

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per day. These requirements are consistent with LAC 33:IX.2707.I.1.b.

Total Copper and Total Iron - The current LPDES permit established a monthly average discharge limitation at 1.0 mg/L and a daily maximum discharge limitation at 1.0 mg/L for both total copper and total iron in accordance with 40 CFR 423.13(e) and (g). These limitations are being retained with the same monitoring frequency of once per week by grab sample.

Fact Sheet and Rationale for
Entergy Gulf States Louisiana, LLC, Roy S. Nelson Oil & Gas Electrical Generating Plant
LA0005843, AI No. 7893
Page 24

Internal Outfall 201

1. General Comments

This outfall is the intermittent discharge of treated sanitary wastewater.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Weekly Average	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/6 months	Estimate
BOD_5	30 mg/L	45 mg/L	1/6 months	Grab
TSS	30 mg/L	45 mg/L	1/6 months	Grab
Fecal Coliform	200 col/100mL	400 col/100mL*	1/6 months	Grab

* Daily maximum

Flow - The current LPDES permit established a reporting requirement for monthly average flow and weekly average flow. These requirements are being retained with a monitoring frequency of once per six months. These requirements are consistent with LAC 33:IX.2707.I.1.b.

BOD_5 - The current LPDES permit established a weekly average limitation of 45 mg/L. A monthly average limitation of 30 mg/L is being established in accordance with the Class I Sanitary Discharge General Permit. These limitations are being retained and established with a monitoring frequency of once per six months by grab sample.

TSS - The current LPDES permit established a weekly average limitation of 45 mg/L. A monthly average limitation of 30 mg/L is being established in accordance with the Class I Sanitary Discharge General Permit. These limitations are being retained and established with a monitoring frequency of once per six months by grab sample.

Fecal Coliform - The current LPDES permit established a weekly average of 400 colonies per 100 mL. The limitation requirement is being changed to a daily maximum of 400 colonies per 100 mL based on LAC33:IX.2709.D. A monthly average limitation of 200 col/100mL is being established in accordance with the Class I Sanitary Discharge General Permit. The monitoring frequency is being retained at once per six months by grab sample.

Outfall 002

1. General Comments

This outfall is the intermittent discharge of low contamination potential stormwater runoff from the Roy S. Nelson Plant's diked fuel oil storage area and previously monitored hydrostatic test wastewater from Outfall 107. The diked fuel oil storage area consists of the No. 6 fuel oil storage tank farm, the occasional discharge of maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System for the south fuel oil storage tank area), pump seal water, an inactive fuel oil pumping island, and the northeast and southeast containment cells of the tank farm.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION*		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
Oil and Grease	---	15 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/quarter	Grab

*Testing of these are required upon exceedance of benchmark concentrations listed in the permit (Part II, Q.6)

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per quarter. These requirements are consistent with LAC33:IX.2707.1.I.1.b.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

Oil and Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron

Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH. These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per quarter by grab sample.

Outfall 003

1. General Comments

This outfall is the intermittent discharge of stormwater runoff and low volume wastewater including but not limited to runoff from the coke and limestone storage area, equipment washwater, deminimus groundwater seepage, pump seal water, maintenance wastewaters, emergency overflow from the coke truck washwater treatment system, sludge geotube wastewater, dust control spray system runoff, and previously monitored hydrostatic test wastewater from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/day	Estimate
TSS	30 mg/L	100 mg/L	1/week	Grab
Oil & Grease	15 mg/L	20 mg/L	1/week	Grab
TOC	---	50 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/week	Grab

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per day. These requirements are consistent with LAC33:IX.2707.1.I.1.b.

TSS - The current LPDES permit established a monthly average limitation of 30 mg/L and a daily maximum limitation of 100 mg/L. These limitations are being retained with a monitoring frequency of once per week by grab sample.

Oil & Grease - The current LPDES permit established a monthly average limitation of 15 mg/L and a daily maximum limitation of 20 mg/L. These limitations are being retained with a monitoring frequency of once per week by grab sample.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH. These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per week by grab sample.

Outfall 004

1. General Comments

This outfall is the intermittent discharge of stormwater runoff from the coke fluidized bed ash disposal landfill runoff collection pond and staging area and previously monitored hydrostatic test wastewater from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/month	Estimate
TSS	30 mg/L	100 mg/L	1/month	Grab
Oil & Grease	---	15 mg/L	1/month	Grab
TOC	---	50 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/month	Grab

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per month. These requirements are consistent with LAC33:IX.2707.1.I.1.b.

TSS - The current LPDES permit established a monthly average limitation of 30 mg/L and a daily maximum limitation of 100 mg/L. These limitations are being retained with a monitoring frequency of once per month by grab sample.

Oil & Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per month by grab sample.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH. These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per month by grab sample.

Outfall 005

1. General Comments

This outfall is the intermittent discharge of low contamination potential stormwater runoff from portions of the ash haul road, the coke and limestone haul road, the gas yard, the No. 2 oil fuel unloading/loading area, the 138 kilovolt (KV) switchyard area, and previously monitored hydrostatic test wastewater from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION*		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
Oil and Grease	---	15 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/quarter	Grab

*Testing of these are required upon exceedance of benchmark concentrations listed in the permit (Part II, Q.6)

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per quarter. These requirements are consistent with LAC33:IX.2707.1.I.1.b.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

Oil and Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH. These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per quarter by grab sample.

Outfall 006

1. General Comments

This outfall is the intermittent discharge of stormwater runoff from the spare parts warehouse area, consolidated shop building area, and kerosene and gasoline tank diked area, maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System around Units 3 and 4), rinse water from the vehicle rinse station, and previously monitored hydrostatic test wastewaters from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	---	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
Oil and Grease	---	15 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/quarter	Grab

Flow - The current LPDES permit established a reporting requirement for daily maximum flow. This requirement is being retained with a monitoring frequency of once per quarter. This requirement is consistent with LAC33:IX.2707.1.I.1.b.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

Oil and Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter when discharging by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH.

These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per quarter by grab sample.

Outfall 007

1. General Comments

This outfall is the intermittent discharge of low contamination potential stormwater runoff from the switchyard and contractor lay down yard and maintenance wastewaters (hydrostatic testing and flushing of piping system and vessels including the Fire Protection Water Supply System and Automatic Sprinkler System that serves the Units 1 - 4 yard and the south contractor lay down yard) and previously monitored hydrostatic test wastewater from Outfall 107.

2. Effluent Limitation, Monitoring Frequencies, and Sample Types

EFFLUENT CHARACTERISTIC	LIMITATION*		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/quarter	Estimate
TOC	---	50 mg/L	1/quarter	Grab
Oil and Grease	---	15 mg/L	1/quarter	Grab
pH	6.0 s.u.	9.0 s.u.	1/quarter	Grab

*Testing of these are required upon exceedance of benchmark concentrations listed in the permit (Part II, Q.6)

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow. These requirements are being retained with a monitoring frequency of once per quarter. These requirements are consistent with LAC33:IX.2707.1.I.1.b.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87 from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

Oil and Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L. This limitation is based on BPJ in accordance with this Office's guidance on stormwater, letter dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). This limitation is being retained with a monitoring frequency of once per quarter by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and a maximum discharge limitation of 9.0 standard units for pH. These limitations are based on BPJ in accordance with this Office's guidance on stormwater letter, dated 6/17/87, from J. Dale Givens (LDEQ) to Myron Knudson (EPA Region 6). These limitations are being retained with a monitoring frequency of once per quarter by grab sample.

Internal Outfall

In accordance with LAC33:IX.3305, the following is an explanation for the establishment of Internal Outfall 107. Certain permit effluent limitations at the point of discharge are impractical because at the final discharge point, the wastewater is diluted as to make monitoring impracticable. Therefore, in accordance with LAC33:IX.2709, the internal outfall described below will remain in the permit.

Outfall 107

1. General Comments

   The intermittent discharge of hydrostatic test wastewater from hydrostatic tests conducted on various pipes, tanks, vessels, and/or equipment.

EFFLUENT CHARACTERISTIC*	LIMITATION		MONITORING REQUIREMENTS	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow-mgd	Report	Report	1/discharge	Estimate
TSS	---	90 mg/L	1/discharge	Grab
Oil & Grease	---	15 mg/L	1/discharge	Grab
TOC	---	50 mg/L	1/discharge	Grab
Benzene**	---	50 µg/L	1/discharge	Grab
Total BTEX**	---	250 µg/L	1/discharge	Grab
Total Lead**	---	50 µg/L	1/discharge	Grab

pH	6.0 s.u.	9.0 s.u.	1/discharge	Grab

* Flow, TSS, Oil and Grease, and pH shall be measured on discharges from all new and existing pipelines, flowlines, vessels, or tanks. In addition, Total Organic Carbon (TOC) shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have previously been in service; (i.e., those which are not new).

** Benzene, Total BTEX, and Total Lead shall be measured on discharges from existing pipelines, flowlines, vessels, or tanks which have been used for the storage or transportation of liquid or gaseous petroleum hydrocarbons.

Flow - The current LPDES permit established a reporting requirement for monthly average flow and daily maximum flow once per discharge. These requirements are being retained and are consistent with LAC 33:IX.2707.I.1.b and the LPDES General Permit for Hydrostatic Test Wastewater, LAG670000.

TSS - The current LPDES permit established a daily maximum limitation of 90 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. This limitation is being retained with a monitoring frequency of once per discharge by grab sample.

Oil & Grease - The current LPDES permit established a daily maximum limitation of 15 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. This limitation is being retained with a monitoring frequency of once per discharge by grab sample.

Total Organic Carbon (TOC) - The current LPDES permit established a daily maximum limitation of 50 mg/L in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. This limitation is being retained with a monitoring frequency of once per discharge by grab sample.

Benzene, Total BTEX, and Lead - The current LPDES permit established a daily maximum limitation of 50 µg/L for Benzene, 250 µg/L for Total BTEX, and 50 µg/L for Total Lead in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. These limitations are being retained with a monitoring frequency of once per discharge by grab sample.

pH - The current LPDES permit established a minimum discharge limitation of 6.0 standard units and maximum discharge limitation of 9.0 standard units for pH in accordance with LPDES General Permit for Hydrostatic Test Wastewater, LAG670000. These limitations are being retained with a monitoring frequency of once per dischage by grab sample.

Part II Specific Conditions

PROHIBITION OF PCB DISCHARGES

As commanded by 40 CFR 423.12(b)(2), a Part II condition is retained in this draft permit prohibiting the discharge of polychlorinated biphenyl compounds.

"There shall be no discharge of polychlorinated biphenyls (PCB's). The minimum quantification level for PCB's is 1.0 µg/l. If any individual analytical test result for PCB's is less than the minimum quantification level, then a value of zero (0) shall be used for the Discharge Monitoring Report (DMR) calculations and reporting requirements."

PROHIBITION OF 126 PRIORITY POLLUTANTS

There shall be no discharge of any 126 priority pollutants (40 CFR 423 Appendix A) associated with the chemicals added for cooling tower maintenance, except total chromium and total zinc. The minimum quantification levels for the 126 priority pollutants are found in Part II, Paragraph H.

CHEMICAL METAL CLEANING WASTE

The term *chemical metal cleaning waste* means any wastewater resulting from cleaning of any metal process equipment with chemical compounds, including, but not limited to, boiler tube cleaning.

METAL CLEANING WASTE

The term *metal cleaning waste* means any wastewater resulting from cleaning (with or without chemical cleaning compounds) any metal process equipment including, but not limited to, boiler tube cleaning, boiler fireside cleaning, and air preheater cleaning.

LOW VOLUME WASTE SOURCES

The term "low volume waste sources" means, taken collectively as if from one source, wastewater from all sources except those for which specific limitations are otherwise established. Low volume waste sources include, but are not limited to: wastewaters from wet scrubber air pollution control systems, ion exchange water treatment systems, water treatment evaporator blowdown, laboratory and sampling streams, boiler blowdown, floor drains, cooling tower basin cleaning wastes, and recirculating house service water systems. Sanitary and air conditioning wastewaters are not included.

FREE AVAILABLE CHLORINE

The term "free available chlorine" shall mean the value obtained using the amperometric titration method for free available chlorine described in the latest edition of Standard Methods for the Examination of Water and Wastewater.

Free available chlorine may not be discharged from any unit for more than two hours in any one day and not more than one unit in any plant may discharge free available chlorine at any one time.

TEMPERATURE

Daily temperature discharge is defined as the flow-weighted average (FWAT) and, on a daily basis, shall be monitored and recorded in accordance with Part I of this permit. FWAT shall be calculated at equal time intervals not greater than two hours. The method of calculating FWAT is as follows:

$$\text{FWAT} = \frac{\text{SUMMATION (INSTANTANEOUS FLOW X INSTANTANEOUS TEMPERATURE)}}{\text{SUMMATION (INSTANTANEOUS FLOW)}}$$

"Daily average temperature" (also known as average monthly) shall be the arithmetic average of all FWATs calculated during the calendar month.

"Daily maximum temperature" (also known as the maximum daily value) shall be the highest FWAT calculated during the calendar month.

PERMIT REOPENER CLAUSE

This permit may be modified, or alternatively, revoked and reissued, to comply with any applicable effluent standard or limitations issued or approved under sections 301(b)(2)(C) and (D); 304(b)(2); and 307(a)(2) of the Clean Water Act, or more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving water bodies based upon additional water quality studies and/or TMDL's, if the effluent standard, limitations, water quality studies or TMDL's so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or

2. Controls any pollutant not limited in the permit; or

3. Requires reassessment due to change in 303(d) status of waterbody; or

4. Incorporates the results of any total maximum daily load allocation, which may be approved for the receiving water body.

The Louisiana Department of Environmental Quality (LDEQ) reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards. Therefore, prior to upgrading or

expanding this facility, the permittee should contact the Department to determine the status of the work being done to establish future effluent limitations and additional permit conditions.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) REQUIREMENT

In accordance with LAC 33:IX.2707.I.3 and 4, a Part II condition is proposed for applicability to all stormwater discharges from the facility, either through permitted outfalls or through outfalls which are not listed in the permit or as sheetflow. **For first time permit issuance,** the Part II condition requires a Storm Water Pollution Prevention Plan (SWP3) within six (6) months of the effective date of the final permit. **For renewal permit issuance,** the Part II condition requires that the Storm Water Pollution Prevention Plan (SWP3) be reviewed and updated, if necessary, within six (6) months of the effective date of the final permit. If the permittee maintains other plans that contain duplicative information, those plans could be incorporated by reference to the SWP3. Examples of these type plans include, but are not limited to: Spill Prevention Control and Countermeasures Plan (SPCC), Best Management Plan (BMP), Response Plans, etc. The conditions will be found in the draft permit. Including Best Management Practice (BMP) controls in the form of a SWP3 is consistent with other LPDES and EPA permits regulating similar discharges of stormwater associated with industrial activity, as defined in LAC 33:IX.2522.B.14 [40 CFR 122.26(b)(14)].

12. COMPLIANCE HISTORY/DMR REVIEW:

A DMR review was completed for the last two years (December 2008 - January 2006). All DMR's were submitted in accordance with the existing permit. Below is a list of the excursions found.

Date	Parameter	Outfall	Reported Value	Permit Limits
7/07	Total Copper	101	19 mg/L	1 mg/L
7/07	Total Iron	101	511 mg/L	1 mg/L
5/08	Temperature	001	92°F	90°F

13. WATER QUALITY CONSIDERATIONS

Subsegment 030806 is listed on LDEQ's Final 2006 303(d) list as impaired for mercury for which the below TMDL has been developed and pH (EPA - Category 5). Subsegment 030806 was previously listed on LDEQ's Final 2006 303(d) list as impaired for organic enrichment/low DO for which the below TMDL have been developed. The Department of Environmental Quality reserves the right to impose more stringent discharge limitations and/or additional restrictions in the future to maintain the water quality integrity and the designated uses of the receiving waterbodies based on additional TMDL's and/or water quality studies. The DEQ also reserves the right to modify or revoke and reissue this permit based upon any changes to established TMDL's for this discharge, or to accommodate for pollutant

trading provisions in approved TMDL watersheds as necessary to achieve compliance with water quality standards.

The following TMDL's have been established for Subsegment 030806.

Calcasieu Estuary TMDL for Dissolved Oxygen

The Roy S. Nelson Oil & Gas Electrical Generating Plant was identified in the TMDL as a point source discharge in the Calcasieu Estuary, specifically the Houston River and was included in the model. The facility was not given an allocation for oxygen demanding pollutants in the TMDL but should continue to be permitted according to state policy. BPJ based limits for TOC and BOD_5 have been maintained from the previous permit and will provide control of oxygen demand from this facility.

Coastal Mercury TMDL

The Roy S. Nelson Oil & Gas Electrical Generating Plant was identified in Appendix C of the TMDL as a point source discharge included in the TMDL. However, based on the facility type, SIC code, previous permits and the absence of reasonable potential to discharge Mercury, the facility was not given an allocation for Mercury in the TMDL. Based on the TMDL rationale and the analytical data submitted with the application, there is no reasonable potential for the discharge of Mercury from this facility. Effluent limitations will not be placed in the renewal permit.

The pH impairment will be addressed in a manner consistent with the Department's permitting guidance for implementing Louisiana's surface water quality standards as follows:

pH

To protect against the further impairment of the pH indicator cause, pH limits have been placed in the permit.

14. ENDANGERED SPECIES:

The receiving waterbody, Subsegment 030806 of the Calcasieu Basin is not listed in Section II.2 of the Implementation Strategy as requiring consultation with the U.S. Fish and Wildlife Service (FWS). This strategy was submitted with a letter dated November 17, 2008, from Rieck (FWS) to Nolan (LDEQ). Therefore, in accordance with the Memorandum of Understanding between the LDEQ and the FWS, no further informal (Section 7, Endangered Species Act) consultation is required. The effluent limitations established in the permit ensure protection of aquatic life and maintenance of the receiving water as aquatic habitat. Therefore, the issuance of the LPDES permit is not likely to have an adverse effect on any endangered or candidate species or the critical habitat.

15. HISTORIC SITES:

The discharge is from an existing facility location, which does not include an expansion on undisturbed soils. Therefore, there should be no potential effect to sites or properties on or eligible for listing on the National Register of Historic Places, and in accordance with the "Memorandum of Understanding for the Protection of Historic Properties in Louisiana Regarding LPDES Permits" no consultation with the Louisiana State Historic Preservation Officer is required.

16. TENTATIVE DETERMINATION:

On the basis of preliminary staff review, the Department of Environmental Quality has made a tentative determination to reissue a permit for the discharge described in the application.

17. PUBLIC NOTICES:

Upon publication of the public notice, a public comment period shall begin on the date of publication and last for at least 30 days thereafter. During this period, any interested persons may submit written comments on the draft permit and may request a public hearing to clarify issues involved in the permit decision at this Office's address on the first page of the fact sheet. a request for a public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing.

Public notice published in:

Local newspaper of general circulation

Office of Environmental Services Public Notice Mailing List